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ABSTRACT

This paper explores whether or not there is a statistically significant relationship between superintendent leadership styles and selected financial and demographic factors in Texas school districts. Specifically, it examines the relationship between superintendent leadership styles and (a) student achievement as evidenced by district ratings, and (b) selected school district financial and demographic factors. It also asks whether pupil-teacher ratios, instructional expenditures, and socioeconomic status are consistently and significantly related to student achievement. To answer these questions, researchers chose a random sample of school districts in each of the three district rating categories of exemplary, recognized, and academically acceptable. The findings show that superintendents were male by a ratio of six to one. More than 63 percent of the exemplary school districts contained high schools with an enrollment of 169 students or less. As regards leadership style, perceived leadership did not vary among exemplary, recognized, and acceptable school districts. However, districts with large populations of economically disadvantaged students did succeed when the school district had strong and purposeful leadership. The data suggest a need for superintendents to understand and act on racial inequities, focus on nonnative students and multicultural populations, and deal with the consequences of societal problems, rather than budgeting, finance, and legal issues. (Contains 27 references.) (RJM)

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Transformational Leadership, Student Achievement, and School District Financial and Demographic Factors

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Transformational Leadership, Student Achievement, and School District Financial and Demographic Factors

An era of expanding federal, state, and local focus on the plight of public education is evidenced by the numerous state and federal reports, national conferences and task forces on education, and the resulting legislative actions occurring at the state and national level. Reform and the national demand for increased student performance have addressed not only the content of the educational process, but also the management of school systems. There is a need to assess the characteristics of superintendent leadership styles required to facilitate reform and school improvement as educators approach the twenty-first century. The nation and the world are experiencing a dramatic shift in social, economic, and technological change propelled by a growing global marketplace and new technologies. These environmental changes have resulted in increased complexity in school organizations and overwhelming responsibility for school superintendents.

School improvement is the basis for the mandated public school accountability system in Texas. The impact of public education on students is believed by Texas politicians and laymen alike to be critical to the social and economic development of the state and the nation. The nineties will likely be known as the decade of accountability and responsibility as reform efforts have swept the nation. In Texas, accountability and accreditation is based upon required and comparable improvement of state standards and supports the public's right to know (TEA, 1999). The accountability system is student

performance driven, while recognizing the diversity of the state and of the students (TEA, 1999). The superintendent is directly responsible to the local school district and to the state education agency for the leadership necessary to improve student achievement. A "no excuses" philosophy has evolved, and the challenge for many superintendents in Texas is to meet the instructional and social needs of a growing population of economically disadvantaged and culturally diverse students. The research reported here seeks to explore the relationship of leadership styles of superintendents and student achievement and specific school district financial and demographic data in selected school districts in Texas.

Background of the Study

Are educational reforms that are heavily dependent on accountability and student achievement actually improving student outcomes? The leadership of the superintendent is believed to be a key in the successful implementation of reforms that positively impact student achievement (Cuban, 1988; Fullan, 1993; Sergiovanni, 1990). The National Commission on Excellence in Education (NCEE) recommended that citizens across the nation hold educators and elected officials responsible for providing the leadership necessary to achieve these reforms and that principals and superintendents play a crucial leadership role (NCEE, 1983). Indeed, it was 16 years ago the NCEE reported that "our society and its educational institutions seem to have lost sight of the basic purposes of schooling, and of the high expectations and disciplined effort needed to attain them" (NCEE, 1983, p.14). This report coupled with a widespread public perception that something is seriously wrong

with our educational system has resulted in the implementation of many new policies, restructuring, and reform efforts across the nation.

In Texas, the focus of the legislature and the Texas Education Agency (TEA) has been on developing and implementing statewide educational reform policy. The major component is the accountability system referred to as the Academic Excellence Indicator System (AEIS). The AEIS was developed and instituted to measure progress on several school improvement efforts. Politically, Texas has emphasized statewide mandated school reform efforts, which resulted in several externally imposed school improvement initiatives. Through the passage of Senate Bill 1 in 1990 and later Senate Bill 7 in May 1993, the Texas Legislature revamped the statewide public school accountability system by requiring the state to (1) develop and implement a system of reliable measurement of each district's performance as evidenced by student performance on the Texas Assessment of Academic Skills (TAAS) tests in the areas of reading, writing, and mathematics, (2) establish academic standards for student performance and report district progress toward meeting standards, (3) recommend action in cases where the results deviated from expected performance, and (4) develop and implement an information dissemination process for informing Texas public schools and communities of results (Heller, 1994).

In the spring of 1999, Senate Bill 103 strengthened the state accountability system with plans to add science and social studies assessments and to tie promotion of students to TAAS test results. At the high school level, mastery of the TAAS test is currently a graduation requirement, and the state

agency plans to implement a more comprehensive test for high school students beginning in the 2002-2003 school year.

The current accountability system provides information to policymakers, school boards, and constituents at all levels on the progress made by school districts in meeting state academic standards as determined by AEIS criteria. The TEA accountability system is driven by a process of mandated legislative reform. Reaching state-mandated standards for student academic performance has become a challenge for all Texas public schools and has caused many superintendents to rethink their role in restructuring and reform. The legislature has also included a "linked" evaluation of teachers, principals and superintendents to student performance measures. The principal and superintendent evaluation instrument includes a student performance component that goes beyond the teacher's level of accountability by placing heavy emphasis on how much a campus or district has improved on many indicators, although student performance on TAAS tests remains a critical component. The Texas Administrative Code (TAC) Chapter 150.1021 states, that the duties of the superintendent include providing the leadership for the attainment of improved student performance.

Other factors, such as financial incentives can affect leadership within a school district, as some school district superintendents receive performance incentive bonuses (performance is usually tied to school district ratings on the AEIS). Incentive programs for superintendents and other educators have been reported by some researchers as having a positive correlation to student achievement (Seay, Smith, & Crews, 1995). Coupled with considerable

research that purports leadership to be the key to successful educational reform (Johnson, Lein, & Ragland, 1997; Schlechty, 1990), superintendents in Texas are highly motivated to improve student performance.

How does leadership impact performance? How do superintendents handle the organizational changes resulting from massive educational reforms such as accountability issues related to student performance? The superintendent is the single most important individual for setting the expectations and the tone of the pattern of change that results from reform efforts within the local district (Fullan, 1991). Many theories of leadership can be found in the organizational literature (Gibson & Marcoulides, 1995) and relates to how superintendents might implement change. Often these theories are divided into distinct approaches, including but not limited to traits, behaviors, situational contingencies, and transformational leadership. It is the superintendent's leadership style (the direction that the leader provides to subordinates in attempting to influence their behavior toward the accomplishment of organizational objectives) (Gibson & Marcoilides, 1995) that is the focus of this study.

To further support the research, the relationship between the leadership style of the superintendent and selected school district financial and demographic factors provided additional data for the researcher. Theoretically, one may expect a potentially significant relationship between superintendent leadership style and demographic and financial factors of a school district because of the situational problems associated with available resources (for students and school districts) that vary from one district to another. A third

research component focused on the significance of the relationship between student achievement in the school districts and the selected school district financial and demographic factors studied. As the research of the effectiveness of superintending as evidenced by improved student performance has not been extensive, such a study provided insight into the leadership skills critical to the task.

Review of the Literature

Given the literature, there is now little doubt that a school effect on achievement exists (Zigarelli, 1996). Can the leadership style of the superintendent impact "school effect?" In Texas, the Educational Economic Policy Center (EEPC) conducted a major research project on school effect and this study concluded that leadership can and does have an impact on schools and learning. The study was an extension of work begun as part of the school accountability study conducted during the 1991-93 legislative interim and provided additional research needed in the development and implementation of the state-wide accountability system.

To isolate the school effect, the EEPC team conducted research on the relationship between variables that the school cannot control (such as demographics, instructional expenditures) and student achievement (TAAS test data) in an attempt to explain differences between schools. Some classrooms and schools with hard to educate student populations show impressive results, while others do not. Variations in average student achievement scores between campuses and among schools with similar student populations are common (EEPC, 199?). This strongly suggests that something is happening in

some school districts to improve student performance that is not happening in others. Since current research has provided evidence that student performance is affected by a complex set of factors, superintendents and other school administrators should only be held accountable for the effects that they can control or influence. Family background and economic conditions, social and community environment, and prior developmental experiences are believed to be important factors that influence how well students perform. Other factors, such as the level of parental support and student interest and effort are also important. Schools are responsible to the extent that they can overcome and build on these factors to improve student performance.

To isolate school effect, an EEPC research tem conducted a multi-variate regression analysis of the relationship between resources and other factors and student academic performance. Using statewide campus level data, the variables studied included student demographics, teacher characteristics and instructional expenditures, in an attempt to explain differences in test scores among schools. In no case did the analyzed variables explain more than 60 percent of variations in average elementary school test scores. Socioeconomic status of students swallowed up all other analyzed variables with 56 percent of the total 60 percent. For high schools, a little over 26 percent of test score differences could be explained by all of the analyzed variables. The differences in scores not explained by these variables must be caused by something happening within the school or school district or caused by chance. When differences persist among schools in similar communities and chance is ruled out, these differences are identified as "school effect.."

To understand more about "school effect" the EEPC research team compared low-performing schools to high performing schools, with both groups having similar demographics. Additional research included sending out survey temas to visit campuses and interview school administrators, teachers, students and parents. Survey results showed consistent differences among high and low performing campuses, even between those with similar percentages of low-socioeconomic students. The results supported the conclusion that differences in student achievement correlate with differences in school climate and learning conditions, regardless of poverty level (Heller, 1994). Specifically, the EEPC report suggest that high levels of instructional leadership, high expectations for student s and staff, frequent monitoring of student progress and program effectiveness, regular review of test results and observation of classrooms, and maintenance of a safe and orderly environment are significantly more prevalent in high performing Texas schools. In all cases, the superintendent is ultimately responsible for the achievement gains of all students in a district.

Another important research study conducted by the Charles A. Dana Center at the University of Texas at Austin studied 26 elementary schools across state. The schools included urban and rural schools, from large and small districts, and served very diverse populations. The research approach was qualitative and relied heavily on case study methodology. According to the authors, there is good reason to be hopeful about the education of students who attend public schools in poor communities (Lein, Johnson, & Ragland, 1997). They found seven common themes including 1) a focus on the academic success of every student 2) no excuses for failure of any student 3)

experimentation was encouraged 4) a belief that everyone is part of the solution 5) a strong sense of family 6) collaboration and trust among staff and 7) a passion for learning and growing. Superintendents provided the support and resources, in fact, the leadership necessary for the continued growth and improvement of successful public schools in Texas.

Superintendent as a Change Agent

Educational organizations heard the call for change and the modern school reform movement was born. Years later, the realization that a significant infusion of attention, energy and money had yielded few results. To turn out students who can think, schools must be learning organizations. Leadership is an essential ingredient for success (Siccone, 1997). Schools can only change to meet the needs of the 21st century through transformation of those who make up the school community. The superintendent must be a facilitator in that they impact an organization by empowering others to be creative thinkers and active contributors.

Along with the expectation that the superintendent must be a strong instructional leader, communities expect the district to make changes and be innovative in the efforts designed to facilitate school improvement. Managing the underlying conflicts that result from the changes that can follow innovation is important to the success of the project. Fullan (1991) believes that the superintendent's role in the change process is crucial. He feels that schools cannot remain innovative unless the superintendent takes specific action to establish the conditions necessary for continuous and long-term program improvement. Fullan (1991) asserts that the greatest problem faced by school

districts is not resistance to innovation, but the fragmentation, isolation and overload caused by too many short-lived efforts among superintendents. He had described the challenges of superintendents in Change Forces:

> Already too much is expected of them. They must respond to the needs of a diverse and challenging student population, a rapidly changing technology in the workplace, and the demands for excellence from all segments of society. The global marketplace raises the stakes ever higher in its performance demands of schools. Deteriorating social conditions continue to widen the awful gap between the have's and the have not's. As Goodlad (1992) says, "healthy nations have healthy schools" not the other way around.

Because there will always be change and people who do not like it resist it, there will always be conflict (Geery, 1997). The way in which these organizational dynamics are handled by the leader create an environment in which employees can grow and flourish or lose effectiveness and productivity. Fullan (199?) states that systems don't create change, but people do.

Few people question the importance of the school superintendent. A superintendent influences the board of education, the bureacracy he manages, and the students for whom he is ultimately responsible (Cuban, 1976). If the superintendent is indeed as pivotal to the future as many believe, then understanding leadership styles of those who are successful in improving student performance may provide some answers.

Statement of the Problem

There is little empirical data concerning the superintendents' leadership styles and how it functions in student achievement. Increasing district performance ratings on the AEIS report card is a priority for all Texas public school systems. There are schools and school districts that have shown improvement in student achievement as evidenced by the Academic Excellence

Indicator System (AEIS) even though school district financial and demographic factors indicate growing minority and economically disadvantaged populations. The problem involved the need to determine if specific leadership styles are more conducive to successfully implementing educational reforms that impact student performance, as evidenced in district AEIS reports.

This study was designed to determine the significance of the relationship between leadership styles of superintendents and student achievement and financial and demographic factors in selected school districts in Texas. A low-performing district rating can result in serious problems for superintendents, as local boards and communities take a dim view of low performing schools and school districts. Current research has not offered answers to such questions as how the leadership of the superintendent impacts student achievement, and what, if any, relationship exists between the superintendent's leadership style and the reported financial and demographic factors in selected school districts in Texas. Exploring the relationship between student achievement and financial and demographic factors has furthered previous research and added depth to this study. Another consideration are the implications to those districts that serve disadvantaged and minority students, as the leadership style of a superintendent that "gets results" with those students who have been described as being "hard to educate" has implications to future superintendents.

Statement of the Purpose

The purpose of this study was to determine the significance of the relationship between the leadership style of superintendents and student achievement and financial and demographic factors in selected school districts

in Texas. The leadership style of the superintendent can affect several areas of concern to the local community, which may include low performing district ratings and/or evidence of failure to provide effective special programs or to comply with federal or state requirements. Other issues include the quality of the planning and site-based decision making processes, which could be related to leadership style of the superintendent. A primary emphasis of the AEIS reports is placed on student performance of subgroups or special population performance and inequities in performance among student population groups. Of particular concern to the educational community in Texas are the consistent low-academic performance levels of minority and economically disadvantaged students on the TAAS tests. There is a realization at the national level that the economic and social welfare of the country cannot be served if a growing population of minority students are left behind (Goodlad, 1994). Many districts across the state received a "low performing" rating and agency visits in recent years due to inequities in student performance. In recent years, "closing the gap" between subgroups has been a challenge to superintendents across the state. Additional research is needed to generate more information regarding the leadership behaviors of Texas successful superintendents, particularly those responsible for improving student achievement in districts with high percentages of minority and economically disadvantaged students.

Research Questions

1. What is the relationship between the superintendent's leadership style and student achievement as evidenced by AEIS district ratings of exemplary, recognized, and academically acceptable?

2. What is the relationship between the superintendent's leadership style and selected school district financial and demographic factors? Will there be a significant relationship between leadership styles and factors such as the percent of economically disadvantaged students in the school district, per pupil cost of instruction, percent of operating expenditures spent on instruction, percent of operating expenditures spent on cocurricular/extracurricular activities, amount of local tax value per pupil in the district, and pupil-teacher ratio of the district?

3. What is the relationship between school district performance on AEIS reports (student achievement) as evidenced by district TAAS scores (percent of students passing) reading, mathematics, and writing portions of the TAAS tests and demographic and financial factors such as the percent of economically disadvantaged students in the school district, per pupil cost of instruction, percent of operating expenditures spent on instruction, percent of operating expenditures spent on cocurricular/extracurricular activities, amount of local tax value per pupil in the district, and the pupil-teacher ratio of the district?

Significance of the Study

The significance of this study was that it sought to find out whether or not there was a statistically significant relationship between superintendent leadership styles as measured by the Multifactor Leadership Questionnaire (MLQ) and selected financial and demographic factors in Texas school districts. Effective leadership requires sound judgement, wisdom, and the ability to evaluate complex information (Fiedler, 1996). Fiedler further states that leadership is an interaction between the leader and the leadership situation.

Certain features or styles of leadership may be dependent upon the meanings given to particular leadership acts in that setting (Gibson & Marcoulides, 1995). How do superintendents improve student performance? Knowledge of which style of leadership has been successful in a given situation would allow school superintendents to modify their existing style in order to improve student achievement (Bulach, Lunenburg, & McCallon, 1995). This study builds upon previous research by examining the relationship between student achievement and financial and demographic factors and focuses on the statistical relationship between the leadership style of the superintendent and the selected variables, including but not limited to, the economic status of the students in the participating districts.

Definition of Terms

The operational definitions used in this study are defined as follows:

1. Leadership. A term that refers to the reported leadership style as measured by the MLQ subscales for 12 leadership factors (Avolio & Bass, 1995).

2. Multifactor Leadership Questionnaire (MLQ). The revised MLQ is a short but comprehensive survey of 45 items which measures a range of leadership styles and was developed by Bernard Bass and Bruce Avolio (1995). The MLQ includes four leadership constructs and 12 subscales that include:

    a. Transformational leadership including (1) idealized (attributes), (2) idealized (behaviors), (3) inspirational motivation, (4) intellectual stimulation, and (5) individualized consideration

    b. Transactional leadership including (6) contingent rewards,

(7) management by exception (active) and (8) management by exception (passive)

c. Non-transactional leadership (9) laissez-faire

d. Outcomes of leadership including (10) extra effort, (11) effectiveness and (12) satisfaction

3. Superintendent. Superintendents are the leaders and managers of the educational systems within a district. According to Fullan (1991), the superintendent leads the development and implementation of a system-wide approach that addresses change within a district that is designed to affect positive growth within a school district. The superintendent is responsible and accountable to increase the basic capacity of the system to manage change effectively. In this study, the term refers to the individuals who hold the title of superintendent within their district in Texas.

4. Accountability System (Texas). This system integrates district accreditation status, campus ratings, district and campus recognition for high performance, and campus, district, and state level reports. The AEIS serves as the basis for all accountability ratings, rewards, and public reports (TEA, 1999) including the district/school report card.

5. Accountability/Accreditation Rating. The Texas public school accountability system features four accountability ratings for district and campuses:

a. Exemplary

b. Recognized

c. Academically Acceptable (Campus-Acceptable)

d. Academically Unacceptable (Campus Low-performing)

Each rating is tied to performance levels on three base indicators (TEA, 1999)

6. Academic Excellence Indicator System (AEIS). This system is used to determine measurable student achievement for each school district. The following base indicators are supported in statute to be used in determining 1998-99 district accreditation status and campus performance ratings. The 1999 AEIS report for each school district includes the following criteria (TEA, 1999):

a. Texas Assessment of Academic Skills (TAAS) tests results

District/campus rated Exemplary=90 percent passing each subject area (all students and student subgroups)

District/campus rated Recognized=80 percent passing each subject area (all students and student subgroups)

District/campus rated Accredited/Acceptable=at least 45 percent passing all tests taken (all students and student subgroups)

District/campus rated Accredited Warned/Low Performing=below 45 percent or fewer of all students taking the TAAS tests passing all tests taken across all grade levels for all subjects.

b. Dropout Rates

Exemplary=1 percent or less; Recognized=3.5 percent or less; Accredited/Acceptable=6 percent or less; and Accredited Warned/Low Performing=above 6 percent.

c. Attendance Rate

All ratings must be at 94 percent or higher.

7. Selected School District Financial and Demographic Factors. Factors to be considered in the statistical analysis will include:

a. Percent of students identified in the AEIS district report as economically disadvantaged. A student may be identified as economically disadvantaged if he/she meet the eligibility requirements for Training Partnership Act, food stamp benefits, or Aid to Families with Dependent Children or other public assistance (TEA, 1997).

b. Percent of operating expenditure on instruction

c. Percent of operating expenditure on cocurricular/extracurricular activities

d. Per pupil cost of instruction in the school district

e. Local taxable value per pupil in the school district

f. Pupil-teacher ratio in the school district

Limitations, Delimitations, and/or Assumptions

There are several limitations to the study. One such problem is that the results are dependent upon the degree of participation of Texas superintendents. Another limitation is that there are variables outside the control of the researcher that impact student achievement, although it is the assumption of the researcher that the leadership style of the superintendent is a critical factor in the development and implementation of change efforts that directly impact student performance. Results should be interpreted with caution, however, because the sample of school districts will be drawn from a single state and no control group was used in the study. Furthermore, the statistical

and design problems associated with correlational studies also posed limitations.

The Multifactor Leadership Questionnaire provided the basis for gathering data, and was correlated with data from participating district AEIS reports. The MLQ included self and rater forms, thus the data gathered from this instrument are restricted by the precision of the perceptions of the participants (the superintendents and the principals who work for them) and may be impacted by biases and prejudices in their perceptions. However, it was the assumption of the researcher that the perceptions of the superintendents and the principals are accurate measures of leadership styles. Another consideration would be the validity and reliability of the instrument, although Bass & Avolio (1991) reported extensive research on validity and reliability of the instrument, with over 10 years of research included in their efforts.

A delimitation involving the length of tenure of the superintendent in the selected school district was also a concern. Because this study was designed to determine if a statistically significant relationship existed between the leadership style of the superintendent and student achievement exists, superintendents with less than two years experience in a selected school district were excluded from the study. In order to see results and to credit the superintendent with raising or maintaining high levels of student performance, a minimum tenure of two years.

Procedures

A proportional random sample allocation of school districts in each of the three district rating categories of exemplary, recognized, and academically

acceptable were selected for participation in the research study. Information was forwarded to each district referencing the research study. Included in the information was a letter to the superintendent of the district that explained the nature of the study as well as to campus principals which gave a detailed explanation of the role they assume as "raters" using the MLQ 5X Short Form. Survey instruments were included for three campus principals along with stamped, pre-addressed envelopes for ease of return. The selected financial and demographic data and the 1999 AEIS reports from each district were retrieved from electronic sources via the Internet through the TEA website. This information was necessary for analysis of the data in research questions two and three.

This research study was designed to show relationships between variables through the use of statistics. The leadership style of the superintendent is believed to impact student performance, resulting in improved performance ratings in the districts in which they are employed. This study explored the relationship between a measure of the superintendent's leadership style, student achievement as evidenced by district ratings on AEIS reports, and selected financial and demographic factors within each school district.

The first research question examined the relationship between the superintendent's scores on the leadership measure (MLQ) and student achievement as evidenced by district ratings. Specifically, the statistical analysis included a multi-variate analysis of variance (MANOVA), which has the same purpose as analysis of variance, except that the dependent variable is a

composite index (a vector) of more than two measured variables (Gall, Borg, & Gall, 1996). The procedure is useful when the measured dependent variables may be related to one another.

The second research question examined the relationship between the superintendent's leadership style and selected financial and demographic factors in the district. While some of the variables used in the correlation study may be beyond the control of the superintendent, such as demographic factors, this resulting data adds to the growing body of evidence that suggests that schools with large populations of economically disadvantaged students can succeed when the school district has strong and purposeful leadership. The statistical analysis selected by the researcher for the second research question was a multiple stepwise regression analysis that determined significant predictors of MLQ scores. An analysis was made to determine the relationship between the criterion variables (MLQ scores) and the predictor variables (selected school district financial and demographic factors).

The final research question examined the relationship between student achievement as evidenced by student performance on TAAS tests in reading, mathematics and writing, and selected financial and demographic school factors in each of the participating school districts. Questions that are answered include whether pupil-teacher ratio, instructional expenditures, and socioeconomic status are consistently and significantly related to student achievement. Again, a multiple stepwise regression analysis was used to explore relationships in the data.

Demographic Findings

By far the majority of superintendents were male. The descriptive statistics reported a six to one ratio of males to females. Overwhelmingly, responding superintendents were 50 to 59 years old. While tenure in the sampled school districts was comparatively high for superintendents in exemplary districts (68.2% have five or more years in their current district), a large group of superintendents in the recognized (29.6%) and acceptable (35.6%) school districts had less than two years experience. The educational background of superintendents was comparable in the recognized and acceptable schools districts, with approximately one quarter having earned a doctoral degree. Only 9.1 percent of superintendents in the exemplary districts held this degree.

The size of the participating school districts was the most robust demographic in the study. Over 63 percent of the exemplary school districts were classified as 1A, which means that the high school or schools in the district had an enrollment of 169 students or less. While the majority of school districts in Texas are small, one would expect them to be spread out among the three ratings categories. This suggests something is positively related to student achievement is happening in these small districts that is not in the larger organizations. However, further research focusing on the demographics of the responding exemplary districts would be necessary to determine the strength of the suggested relationship between smaller schools and student achievement.

Research Question One

The first research question examined the relationship between the superintendent's scores on the leadership measure (MLQ) and student achievement as evidenced by district ratings. Specifically, the statistical analysis included a analysis of variance (ANOVA) for each of the leadership factors. Mean scores for the transformational factors of influence (attributed and behavior), inspirational motivation, intellectual stimulation, and individual consideration; the transactional factors of contingent reward, management-by-exception (active and passive) were comparable across the three ratings categories of exemplary, recognized, and acceptable school districts. There was no significant difference in the ANOVA's for these factor scores. The data reflects that the perceived leadership did not vary among exemplary, recognized, and acceptable school districts. It should be noted, however, that the mean scores of transformational factors indicates that superintendents rely on transformational more than transactional leadership.

Contingent reward was the only transactional factor with high mean scores (3.118) as compared with management-by-exception, active and passive (1.68 and 1.49 respectively). The direct power of superintendents over principals may have resulted in its high mean scores for this factor. The growing role superintendents are playing in curriculum and instruction may also impact the superintendent's perceived leadership style by the principals. It can also be proposed that the added expectations of local school boards for superintendents to raise school district ratings could play a role in the high mean score for contingent reward, as superintendents are likely to take what may be viewed as aggressive action to improve student performance as

measured by the indicators in the Academic Excellence Indicator System. Since contingent reward revolves around an exchange between the leader and the follower, improved student performance could result in added benefits for the principal in an improving or high performing school. Educational leaders should be trained in using rewards to cultivate enhanced performances rather than using the rewards which they can control for meeting ordinary expectations. Management-by-exception allows the status quo to exist; low mean scores indicate that principals perceive their superintendents to be change agents who transform the organization in which they have assumed responsibility.

The mean scores of the outcome variables were consistently high across the three ratings categories as well. These scores indicate that principals are motivated by their leaders and that superintendents are perceived as effective. The data also indicated that principals responding in this study were satisfied with the style of leadership of the superintendent.

Research Question Two

A multivariate regression analysis was used to explore the second research question which investigated the relationship between superintendent leadership styles as measured by the MLQ and district TAAS scores (measurable variables) in reading, writing, and mathematics as reported in the 1999 AEIS data collected for this study. The findings did not support a relationship between the leadership factors of the superintendents and TAAS scores. Although the current literature suggests that the superintendent plays

an important role in school reform, student achievement is likely to impacted by many factors, specifically financial and demographic factors.

Research Question Three

The third research question examined the relationship between the superintendent's leadership style and selected financial and demographic factors in the district. These factors include the reported ethnic breakdown and socioeconomic status of the school district, student participation in special programs, and financial data such as per pupil expenditures, taxable value per pupil in the school district, and the percentage of the budget spent on instruction and cocurricular/extracurricular activities. While some of the variables used in the correlation study may be beyond the control of the superintendent, such as demographic factors, the resulting data adds to the growing body of evidence that suggests that schools with large populations of economically disadvantaged students can succeed when the school district has strong and purposeful leadership. The statistical treatment selected by the researcher for the third research question was a multiple stepwise regression analysis that determined significant predictors of MLQ scores. An analysis was made of the relationship between the criterion variables (MLQ scores) and the predictor variables (selected school district financial and demographic factors). Three leadership factors were identified as having potentially significant relationships with the financial and demographic variables.

Influence (behavior) was formerly known as charisma. Influence revolves around the superintendent's ability to provoke commitment and devotion among his/her staff. Superintendents who rated high in this subscale

are perceived as value driven and consider the moral and ethical consequences of decisions. Both of the variables that were the strongest predictors of this leadership factor can be categorized as both demographic and financial in nature. Student/teacher ratio was the best predictor. This may reflect the financial health of the school district or a certain philosophy of the superintendent and school board. Another significant factor on the perceived influence of the superintendent is the percentage of limited English proficient students in the school district. Superintendents, principals, and teachers face tremendous challenges when given the task of educating students who do not speak English. The legislature has made it very clear that these students must be included in the accountability system and will not be left behind. This value-congruence skill may be important in working with special populations such as limited English proficient students.

The stepwise regression analysis for inspirational motivation resulted in the identification of four significant financial and demographic factors. It is important to remember that superintendents in this study received high mean scores for this trait, higher than all of the other leadership factors. Inspirational motivation refers to the superintendent's ability to create a shared vision. Current training for superintendent's often includes strategic planning and this high rating may be indicative of this effort. Visioning skills are reportedly one of the transformational leadership skills that can be learned (Byrd, 1987). The four predictor variables for inspirational motivation include student/teacher ratio (the strongest measure), taxable value pupil pupil, the percentage of economically disadvantaged students and the percentage of Asian students in the school

districts. These two financial and two demographic variables are indicative of the complexity in managing the increasing diverse student populations in school districts in Texas.

Research Question Four

The final research question examines the relationship between student achievement as evidenced by student performance on TAAS tests in reading, mathematics, and writing, and selected financial and demographic school factors in each of the participating school districts. Some of the questions answered include whether pupil-teacher ratio, instructional expenditures, socioeconomic status are consistently and significantly related to student achievement. Again, regression analysis was used to explore relationships in the data.

According to the findings, the best predictor of readings scores was the percentage of economically disadvantaged students in a school district. This factor accounted for 39 percent of the variance in the scores.

Critical predictors of TAAS writing scores are the percentage of low SES students in the school district, which accounts for 16.66 percent of the variance in writing scores and the percentage of the budget dedicated to instruction, which brings the total amount of variance in the scores to 21.61 percent.

Not surprisingly, the percentage of economically disadvantaged students and the percentage of African American students in the school district were the strongest predictors of TAAS mathematics scores. The percentage of disadvantaged students accounted for 26.85 percent of the variance in the TAAS mathematics scores.

Implications

The superintendency in Texas presents challenges specific to the state and the community. The educational reform movement resulted in the need for leadership skills that go beyond management and include transformational leadership behaviors. This era of accountability in Texas and the nation has brought opportunities to the superintendency that has created a new profile for a school district's chief executive officer. Major changes in educational policies has brought forth a new kind of leader who is a strong supporter of academics, and one who guides the district in planning for a future with continued major changes in educational policies and methods of instruction. Although management skills are important in dealing with the everyday management of a school district, additional skills are need in order to move the organization into the twenty-first century.

The future of education in Texas is uncertain, however, the superintendency is the position that will make it happen. In order to better prepare leaders of tomorrow, implications for training programs for superintendents will be presented based on the research conducted regarding superintendent leadership styles and student achievement and selected financial and demographic variables.

No other position in the educational system directly influences change more than that of the superintendency. Preparing and continuing education programs constructed to train school executives in transformational leadership skills would be a worthwhile activity. Five transformational leadership skills that are reported in the literature as part of a behavioral process that can be learned

are (1) anticipatory skills, (2) visioning skills, (3) value-congruence skills, (4) empowerment skills, and (5) self-understanding (Byrd, 1987).

These transformational leadership skills are not developed by listening to lectures or reading. A participative process is essential as must be actively involved in the practice of the skills and must see these skills modeled. This training could be included in the internship required in most superintendency preparation programs, which would provide for continuity of training. This would be an appropriate time for developing these skills, as well as promoting collegiality and networking opportunities. The design of the program should be outcome based to further professional growth.

The superintendent sets the tone for expectations of student achievement within the school district. The content of the superintendency preparation program should include a transformational leadership component that allows the superintendent opportunities to develop an educational vision for the school district. Visioning skills are essential for transformational leaders. Team building skills will facilitate the involvement of others in goal setting and decision making necessary in making progress toward the primary goal of improving student achievement.

Values congruence and clarification are important in communicating the vision of the district. Those successful superintendents who are viewed as transformational have aligned their personal values with correct principles and are liberated from old perceptions or paradigms (Covey, 1990). Time in superintendency preparation programs should be taken to analyze how well their values, perceptions, beliefs, and behaviors align with their principles.

When discrepancies such as prejudice or ignorance are examined, adjustments can be made to realign with greater wisdom. This training is critical as superintendents are responsible for the education of very diverse student populations which presents its own set of problems. The data in this study has indicated that ethnicity and socioeconomic status are the strong predictors of student achievement in Texas. Superintendents must know how to build and maintain high expectations for all students regardless of social, ethnic, or economic status. Values congruence could be one component of "self-understanding" seminars included in the internship required for certification.

The data in this study suggests a need for superintendents to understand and act on racial inequities, focus on non-native students and working with multicultural population, deal with the consequences of societal problems, specifically poverty, and focus on real people and real problems rather than on budgeting, finance, and legal issues. These recommendations for training programs are applicable for inclusion in higher education course requirements for superintendency certification and would provide practical application to aspiring superintendents.

The superintendency is a "people" business. School districts who are lucky enough to have a charismatic leader who motivates teachers and students and facilitates change will see improvements in student achievement. This research study has focused on student achievement and the leadership styles of superintendents, while taking into account the financial and demographic variables that can impact a school district. If a district is looking to make significant changes, a transformational leader is desired as opposed to

one who would support a status quo philosophy. School boards may want to include in the interview process a way to determine the transformational or transactional orientation of the candidate. The demographic data in this study indicated that over half of the superintendents were between 50 and 59 years old, with another 10 percent being over 60 years old. Logically, this means that a large number of superintendents will soon retire and will have to be replaced, hopefully with qualified individuals with a strong vision as to what knowledge and skills are necessary for the success of the generations of students to come in the twenty-first century.

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